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Group Art Unit: 3742

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-20. (Cancelled)

~~{Claim 21}~~21. (Currently Amended) A vehicle in combination with a distributed microwave cooking system, comprising:

a microwave cooking element located within the vehicle and accessible by a user of the vehicle;

a microwave generator located within the vehicle and remotely spaced from the microwave cooking element; and

a microwave conduit connecting the microwave generator to the microwave cooking element such that the microwaves generated by the microwave generator are directed to the microwave cooking element through the microwave conduit to cook an item with the microwave cooking element.

~~{Claim 22}~~22. (Currently Amended) The combination of claim 21, wherein the microwave conduit comprises a coaxial cable carrying the microwaves from the microwave generator to the cooking element.

~~{Claim 23}~~23. (Currently Amended) The combination of claim 22, wherein the microwave conduit further comprises a waveguide connected to the output of the microwave generator and to one end of the coaxial cable to direct the microwaves from the microwave generator to the coaxial cable for distribution to the cooking element.

~~{Claim 24}~~24. (Currently Amended) The combination of claim 23, and further comprising multiple microwave cooking elements located in the vehicle.

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~~{Claim 25}~~25. (Currently Amended) The combination of claim 24, wherein the microwave conduit further comprises a switch attached to the other end of the coaxial cable, and the switch has multiple outputs to thereby switch the microwaves passing through the coaxial cable amongst the multiple outputs and the microwave conduit further comprises multiple feeder coaxial cables for connecting the switch outputs to the cooking elements to thereby distribute the microwaves from the microwave generator to the multiple cooking elements.

~~{Claim 26}~~26. (Currently Amended) The combination of claim 25, wherein there is a feeder coaxial cable for each of the cooking elements.

~~{Claim 27}~~27. (Currently Amended) The combination of claim 24, wherein there are multiple coaxial cables and each coaxial cable connects a different cooking element to the waveguide.

~~{Claim 28}~~28. (Currently Amended) The combination of claim 27, wherein the waveguide comprises multiple channels and each channel corresponds to one of the coaxial cables.

~~{Claim 29}~~29. (Currently Amended) The combination of claim 21, wherein the vehicle comprises a passenger compartment and the microwave cooking element is located within the passenger compartment.

~~{Claim 30}~~30. (Currently Amended) The combination of claim 29, wherein the microwave generator is located within the passenger compartment.

~~{Claim 31}~~31. (Currently Amended) The combination of claim 29, wherein the vehicle comprises a storage area and the microwave generator is located in the storage area.

~~{Claim 32}~~32. (Currently Amended) The combination of claim 31, wherein the vehicle comprises a trunk that defines the storage area.

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~~{Claim 33}~~33. (Currently Amended) The combination of claim 21, wherein the passenger compartment comprises a console having a selectively closeable cavity forming the cooking element.

~~{Claim 34}~~34. (Currently Amended) The combination of claim 33, wherein the passenger compartment comprises spaced front seats with the console is located between the spaced front seats.

~~{Claim 35}~~35. (Currently Amended) The combination of claim 34, wherein the passenger compartment comprises a dash and a second cooking element is located in the dash and connected to the microwave generator by the microwave conduit.

~~{Claim 36}~~36. (Currently Amended) The combination of claim 35, wherein the dash comprises a glovebox defining a selectively closeable cavity forming the second cooking element.

~~{Claim 37}~~37. (Currently Amended) The combination of claim 21, wherein the cooking element comprises a housing having an open-top recess defining a cooking cavity sized to receive a cup, and a cover movably mounted to the housing for selectively closing the open-top cooking cavity with the cup positioned within the cavity, wherein the housing is located within the passenger compartment such that it is accessible by a user of the vehicle.

~~{Claim 38}~~38. (Currently Amended) The combination of claim 37, wherein the cooking cavity comprises a cup support on which the bottom of the cup will rest when the cup is placed within the cooking cavity.

~~{Claim 39}~~39. (Currently Amended) The combination of claim 38, wherein the microwave conduit comprises a coaxial cable having one end coupled to the microwave generator and an other end coupled to the cooking cavity to deliver the microwaves from the microwave generator to the cooking cavity.

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~~{Claim 40}~~40. (Currently Amended) The combination of claim 39, wherein the coaxial cable has an inner conductor with a portion that extends into the cooking cavity to form an antenna for transmitting the microwaves into the cooking cavity for direct contact with the cup.

~~{Claim 41}~~41. (Currently Amended) The combination of claim 40, wherein the antenna is located beneath the cup support.

~~{Claim 42}~~42. (Currently Amended) The combination of claim 39, and further comprising a heating element located within cooking cavity, the heating element being made from a microwave lossy material and directly connected to the other end of the coaxial cable such that the microwaves heat the heating element to introduce heat into the cooking cavity.

~~{Claim 43}~~43. (Currently Amended) The combination of claim 42, wherein the heating element forms the cup support.

~~{Claim 44}~~44. (Currently Amended) The combination of claim 37, and further comprising a temperature sensor located in the cooking cavity for determining the temperature of the contents of the cup.

~~{Claim 45}~~45. (Currently Amended) The combination of claim 44, wherein the temperature sensor is an infrared sensor located on the cover such that the infrared sensor overlies the top of a cup positioned within the cooking cavity when the cover closes the cooking cavity.

~~{Claim 46}~~46. (Currently Amended) The combination of claim 44, wherein the temperature sensor is a temperature probe that extends into the open top of a cup positioned within the cooking cavity when the cover closes the cooking cavity.

~~{Claim 47}~~47. (Currently Amended) The combination of claim 37, and further comprising a load

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sensor for determining if a cup placed within the cooking cavity has a threshold volume of liquid.

~~{Claim 48}~~48. (Currently Amended) The combination of claim 47, wherein the load sensor is weight sensor that detects a threshold weight for the load.

~~{Claim 49}~~49. (Currently Amended) The combination of claim 47, wherein the load sensor comprises an excess microwave sensor for detecting the microwaves not absorbed by the contents of the cup.

~~{Claim 50}~~50. (Currently Amended) The combination of claim 37, wherein the cover defines an open-bottom recess and the combination of the housing open-top recess and the cover open-bottom recess define the cooking cavity.

~~{Claim 51}~~51. (Currently Amended) A microwave cup warmer for a vehicle, comprising:
a microwave cooking element for warming the contents of a cup;
a microwave generator located remotely from the microwave cooking element; and
a microwave conduit connecting the microwave generator to the microwave cooking element such that the microwaves generated by the microwave generator are directed to the microwave cooking element through the microwave conduit to cook an item with the microwave cooking element.

~~{Claim 52}~~52. (Currently Amended) The microwave cup warmer of claim 51, wherein the cooking element comprises a housing having an open-top recess defining a cooking cavity sized to receive a cup, and a cover movably mounted to the housing for selectively closing the open-top cooking cavity with the cup positioned within the cavity.

~~{Claim 53}~~53. (Currently Amended) The microwave cup warmer of claim 52, wherein the cooking cavity comprises a cup support on which the bottom of the cup will rest when the cup is placed within the cooking cavity.

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~~{Claim 54}~~54. (Currently Amended) The microwave cup warmer of claim 53, wherein the microwave conduit comprises a coaxial cable having one end coupled to the microwave generator and an other end coupled to the cooking cavity to deliver the microwaves from the microwave generator to the cooking cavity.

~~{Claim 55}~~55. (Currently Amended) The microwave cup warmer of claim 54, wherein the coaxial cable has an inner conductor with a portion that extends into the cooking cavity to form an antenna for transmitting the microwaves into the cooking cavity for direct contact with the cup.

~~{Claim 56}~~56. (Currently Amended) The microwave cup warmer of claim 55, wherein the antenna is located beneath the cup support.

~~{Claim 57}~~57. (Currently Amended) The microwave cup warmer of claim 56, and further comprising a heating element located within cooking cavity, the heating element being made from a microwave lossy material and directly connected to the other end of the coaxial cable such that the microwaves heat the heating element to introduce heat into the cooking cavity.

~~{Claim 58}~~58. (Currently Amended) The microwave cup warmer of claim 57, wherein the heating element forms the cup support.

~~{Claim 59}~~59. (Currently Amended) The microwave cup warmer of claim 54, wherein the microwave conduit further comprises a waveguide having one portion connected to the microwave generator and another portion connected to the one end of the coaxial cable to couple the coaxial cable to the microwave generator.

~~{Claim 60}~~60. (Currently Amended) The microwave cup warmer of claim 59, wherein the coaxial cable has an inner conductor with a portion that extends into a channel formed in the

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interior of the waveguide to permit the transmission of the microwaves from the microwave generator, through the waveguide, and into the inner conductor.

~~{Claim 61}~~61. (Currently Amended) The microwave cup warmer of claim 60, wherein the portion of the inner conductor extending into the waveguide is tapered.

~~{Claim 62}~~62. (Currently Amended) The microwave cup warmer of claim 61, wherein the portion of the inner conductor extending into the waveguide is spaced $1/4$ of a wavelength of the microwaves upstream from an end of the waveguide.

~~{Claim 63}~~63. (Currently Amended) The microwave cup warmer of claim 62, and further comprising an impedance tuner located within the channel upstream of the portion of the inner conductor extending into the waveguide.

~~{Claim 64}~~64. (Currently Amended) The microwave cup warmer of claim 52, and further comprising a temperature sensor located in the cooking cavity for determining the temperature of the contents of the cup.

~~{Claim 65}~~65. (Currently Amended) The microwave cup warmer of claim 64, wherein the temperature sensor is an infrared sensor located on the cover such that the infrared sensor overlies the top of a cup positioned within the cooking cavity when the cover closes the cooking cavity.

~~{Claim 66}~~66. (Currently Amended) The microwave cup warmer of claim 64, wherein the temperature sensor is a temperature probe that extends into the open top of a cup positioned within the cooking cavity when the cover closes the cooking cavity.

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~~{Claim 67}~~67. (Currently Amended) The microwave cup warmer of claim 52, and further comprising a load sensor for determining if a cup placed within the cooking cavity has a threshold volume of liquid.

~~{Claim 68}~~68. (Currently Amended) The microwave cup warmer of claim 67, wherein the load sensor is weight sensor that detects a threshold weight for the load.

~~{Claim 69}~~69. (Currently Amended) The microwave cup warmer of claim 68, wherein the load sensor comprises an excess microwave sensor for detecting the microwaves not absorbed by the contents of the cup.

~~{Claim 70}~~70. (Currently Amended) The microwave cup warmer of claim 52, wherein the cover defines an open-bottom recess and the combination of the housing open-top recess and the cover open-bottom recess define the cooking cavity.